Adventures of a field assistant in the Amazon

The current EMS system is, understandably, geared towards domestic animals, so vet students with an interest in wildlife often develop this independently. Fourth-year vet student Renata Snow spent last summer trapping and tracking tamarins in the Amazon rainforest.

APPROACHING an EMS-free summer between my preclinical and clinical years, I wanted to gain practical experience in collecting data from wild populations of animals. Such data underpin our knowledge of non-domestic species and help vets, conservationists and other interested parties make important decisions. During my search, I came across PrimatesPeru (primatesperu.org), a not-for-profit organisation built on the foundation of one scientist’s PhD research. Although it has since expanded, PrimatesPeru maintains its original focus on saddleback and emperor tamarins.

These tamarins are callitrichids, tiny New World primates with a fascinating reproductive system. Of physiological interest, pregnancies almost always produce twins, and stem cell exchange in utero makes twins genetic chimeras (cellular mosaics) of each other. Of behavioural interest, groups of tamarins typically include one breeding female and several male mates. The males all assist in the care of her twins, regardless of which is the genetic father; this is termed ‘alloparenting.’ The group may include one or two other females whose reproductive cycles appear to be suppressed until they split off to become a dominant female in another group.

PrimatesPeru’s research is based at a field station in the Amazon rainforest, five hours by boat from the nearest town. I was involved in both the trapping and behavioural aspects of its work. Where trapping is concerned, PrimatesPeru has developed a high-welfare capture and release programme that brings the lab to the animals, minimising the disruption to them.

On a typical trapping day, we would hike through the forest to set up our equipment in a tent before dawn. As a field assistant, I would monitor the tamarins’ temperature and depth of anaesthesia, take hair and nail samples and vaginal and buccal swabs, and hold them for blood draws and dental casts. I also recorded details of injuries we found (a parallel research project for which I received funding). All trapped tamarins were microchipped before release; they can then be studied year on year.

On the behavioural front, I learnt to use radiotelemetry to locate groups of tamarins. Two or three of us would follow them for hours at a time, recording grooming sessions, feeding patterns, interactions with other groups and (using GPS) details of their route. Keeping rat-sized primates in sight as they speed through trees several metres overhead – without tripping over roots underfoot or falling into a ravine – is every bit as hard as it sounds!

More seriously, this represents a valuable opportunity for conservation-focused vet students to acquire a wide range of fieldwork skills and experience the challenges of working in a remote environment. And, in
between all the lectures and farm husbandry EMS, the preclinical veterinary course puts students in an excellent position to apply: a thorough grounding in multiple areas of animal biology? Check. The ability to live and work with the same small team of people in an isolated setting for an extended period of time? Check. Up for early starts and physically hard work? Check.

There are, however, some things for which you cannot prepare – for instance, the disgust of watching bot flies grow under your skin, or the vulnerability you feel in treading the same paths as the local jaguars. Or the sheer delight of seeing capybaras, macaws and howler monkeys in the wild, or the thrill of exploring one of the most biodiverse places on the planet.

Renata’s project on injuries was supported by the British Veterinary Zoological Society’s Zebra Foundation and St Catharine’s College, Cambridge. She is now working with PrimatesPeru’s principal investigators to submit a draft for publication.

Ten-minute chat

Mike Brampton is managing director of Thames Medical; he lectures at Nottingham veterinary school on blood pressure and anaesthesia application and monitoring techniques. During May and June he is cycling from Worthing to Stirling to raise money for Canine Partners by delivering CPD to veterinary practices along the way.

How did you come up with the idea of cycling from Worthing to Stirling?

Long distance cycling is something I like to do. Worthing was initially chosen as the start point because that is where Thames Medical is based, although the trip has now been extended by a week, so it is from the West Country to Stirling, via Worthing. Stirling was chosen because one of the first organisations who committed to the event was the charity Vet Trust and I am lecturing at its conference, which is in Stirling, although I am happy to carry on to Aberdeen or Inverness if asked.

How many miles a day will you travel?

Daily mileage will be between 60 and 80, leading to a total of about 1300 miles.

Have you ever cycled so far before?

I have been doing crazy rides like this for a few years now since I started cycling 14 years ago. I generally race on the road and at the velodrome, to a reasonable level, although I was knocked out of the National Kierin Championships three years ago by the reigning Olympic and World Champion, Sir Chris Hoy. I have raced the Le Mans 24-hour with a teammate, finishing seventh and covering 496 miles, and two years ago I helped the Onswitch team ride from Inverness to Brighton in three days. I have had 18 months off through injury, but following surgery I am looking to get back in the saddle and the daily mileage will be between 60 and 80.

How many stops are you making?

We have nine dates firmly booked and we are talking with a couple more practices, but this still leaves a number of opportunities. One practice has turned the concept on its head and is promoting Canine Partners, getting clients involved and using the event – and my arrival – as something to highlight the extra/advanced skills they are investing in to benefit their clients. It’s an easy and proactive way to hold a CAT Doppler probe a couple of weeks ago . . . and I invented it!

What CPD will you be providing?

Originally I was planning on doing the hands-on practical ‘How to take blood pressure on cats’ that I teach on the Nottingham vet course. Then the College of Animal Welfare asked if it could be involved and booked me for a day, so we decided to do a day of ‘Anaesthesia is fun’ lectures and practicals, playing with the various parameters and monitors used.

Is it just for vets or nurses too?

I am happy working with vets as well as nurses; it is sometimes surprising what we all forget, myself included, so it is always good to challenge and refresh our knowledge on things like blood pressure or capnography. I know I learn something every time I teach. I was shown a new way to hold a CAT Doppler probe a couple of weeks ago . . . and I invented it!

Why Canine Partners?

I had seen some of the stuff Canine Partners do in the past, and find it inspirational. I like the veterinary/animal/human collaboration, too. When I contacted them with this idea they were very proactive and positive in their support. I visited their headquarters and met some of the people involved and was privileged to meet a few of the people who have trained dogs. It’s inspirational stuff, and the love and bond between them all is tangible.

How are you getting home?

Great question! I haven’t really thought about that yet; maybe I’ll keep going! Maybe by train – who knows? – maybe by bike.

Anyone wanting to sponsor Mike’s ride can visit www.justgiving.com/Tour-De-Vet.
Ten-minute chat

Mike Brampton

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